

[0084] What is claimed is:

1. A fluid line connector assembly comprising:  
a length of flexible tubing having a generally cylindrical tubing end; and,  
an end fitting secured on said tubing end using a brazing material.
2. A fluid line connector assembly according to claim 1, wherein said flexible tubing is corrugated tubing and said cylindrical tubing end includes a non-corrugated portion.
3. A fluid line connector assembly according to claim 2, wherein said corrugations are helical corrugations.
4. A fluid line connector assembly according to claim 1, wherein said end fitting has an inside wall and an outside wall, and said inside wall forms a passage through said end fitting.
5. A fluid line connector assembly according to claim 4, wherein at least a portion of said inside wall is spaced radially outwardly from said tubing end and said brazing material is disposed within said space therebetween.
6. A fluid line connector assembly according to claim 5, wherein each of said tubing end and said passage has an axis, and said end fitting is positioned on said tubing end such that said passage is coaxially received on said tubing end.
7. A fluid line connector assembly according to claim 1, wherein said end fitting is formed from a material that readily oxidizes.
8. A fluid line connector assembly according to claim 7, wherein said material is low-carbon steel.
9. A fluid line connector assembly according to claim 1, wherein said end fitting is plated.

10. A fluid line connector assembly according to claim 9, wherein said plating is an electroless nickel plating.
11. A fluid line connector assembly according to claim 1, wherein said brazing material has a liquidus temperature above about 300 degrees Fahrenheit.
12. A fluid line connector assembly according to claim 11, wherein said brazing material is comprised of from about thirty (30) percent to about seventy (70) percent silver.
13. A fluid line connector assembly according to claim 12, wherein said brazing material is further comprised of from about one (1) percent to about forty (40) percent copper.
14. A fluid line connector assembly according to claim 12, wherein said brazing material is further comprised of from about ten (10) percent to about fifty (50) percent zinc.
15. A fluid line connector assembly according to claim 12, wherein said brazing material is further comprised of from about one-half (0.5) percent to about four (4) percent nickel.
16. A fluid line connector assembly according to claim 1 further comprising a base collar on said tubing end, a sheath extending along at least a portion of said flexible tubing and said base collar, and a retaining collar retaining said sheath in abutting engagement with said base collar.
17. A fluid line connector assembly according to claim 16, wherein said end fitting includes an axially outwardly extending annular cuff.
18. A fluid line connector assembly according to claim 16, wherein said base collar is integrally formed as a portion of said end fitting.

19. A fluid line connector assembly according to claim 18, wherein said base collar portion of said end fitting includes a radially outwardly extending wall, and at least a portion of said retaining ring extends radially inwardly of said outwardly extending wall.
20. A fluid line connector assembly according to claim 1, wherein said end fitting includes a plurality of threads extending along at least a portion thereof.
21. A fluid line connector assembly comprising:
  - a length of flexible tubing having a generally cylindrical tubing end;
  - an end fitting secured on said tubing end using a brazing material;
  - a base collar on said tubing end;
  - a retaining collar in radially outwardly spaced relation to said base collar; and,
  - a sheath extending along a portion of flexible tubing and said base collar, and compressively retained in abutting engagement with said base collar by said retaining collar.
22. A fluid line connector assembly according to claim 21, wherein said end fitting has an inside wall and an outside wall, and said inside wall forms a passage through said end fitting.
23. A fluid line connector assembly according to claim 22, wherein at least a portion of said inside wall is spaced radially outwardly from said tubing end and said brazing material is disposed within said space therebetween.
24. A fluid line connector assembly according to claim 21, wherein said end fitting is plated.
25. A fluid line connector assembly according to claim 21, wherein said end fitting includes an axially outwardly extending annular cuff.
26. A fluid line connector assembly according to claim 21, wherein said base collar is integrally formed as a portion of said end fitting.

27. A fluid line connector assembly according to claim 21, wherein said brazing material has a liquidus temperature above about 300 degrees Fahrenheit.
28. A fluid line connector assembly according to claim 27, wherein said brazing material is comprised of from about thirty (30) percent to about seventy (70) percent silver.
29. A fluid line connector assembly according to claim 28, wherein said brazing material is further comprised of from about one (1) percent to about forty (40) percent copper.
30. fluid line connector assembly according to claim 29, wherein said brazing material is further comprised of from about ten (10) percent to about fifty (50) percent zinc.
31. A fluid line connector assembly according to claim 30, wherein said brazing material is further comprised of from about one half (0.5) percent to about four (4) percent nickel.
32. A fluid line connector assembly according to claim 31, wherein said end fitting is plated.
33. A fluid line connector assembly according to claim 32, wherein said plating is electroless nickel plating.
34. A method of assembling a fluid line connector assembly comprising the steps of:
  - A. providing a length of flexible tubing having a generally cylindrical tubing end and an end fitting having an inside wall forming a passage through said end fitting;
  - B. installing said end fitting on said tubing end such that at least a portion of said inside wall is spaced radially outwardly from said tubing end;
  - C. heating at least one of said tubing end and said end fitting; and,
  - D. introducing a quantity of brazing material into said space between said inside wall and said tubing end forming a brazed connection therebetween.

35. A fluid line connector assembly according to claim 34, wherein said brazing material has a liquidus temperature above about 300 degrees Fahrenheit.
36. A fluid line connector assembly according to claim 35, wherein said brazing material is comprised of from about thirty (30) percent to about seventy (70) percent silver.
37. A method according to claim 34 further comprising a step of providing a sheath and extending said sheath along said flexible tubing prior to step B.
38. A fluid line connector assembly according to claim 37 further comprising a step of providing a base collar and a retaining collar; positioning said base collar on said tubing end; extending said sheath along a portion of said tubing end; and radially inwardly deforming said retaining collar to secure said sheath in abutting engagement with said base collar prior to step B.
39. A fluid line connector assembly according to claim 37 further comprising the steps of providing a retaining ring and positioning said retaining ring on said flexible tubing prior to step B.
40. A fluid line connector assembly according to claim 39, wherein said end fitting includes a base ring integrally formed thereon.
41. A fluid line connector assembly according to claim 40 further comprising steps of extending said sheath along said base ring integrally formed on said end fitting and radially inwardly said retaining collar to secure said sheath in a butting arrangement with said base collar after step B.